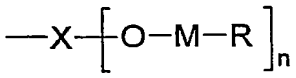
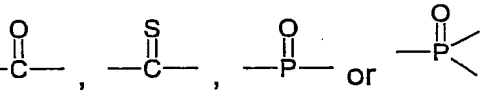
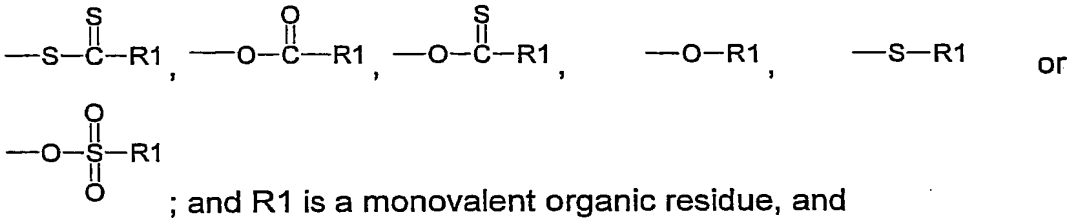
Claims

1. An antifouling coating composition comprising

-- 20-100% by weight, calculated on the total amount of film-forming components, of a film-forming polymer (A) having an acrylic backbone bearing at least one terminal group of the formula:



wherein X represents  M is a metal of Group Ib, IIa, IIb, IIIa, IIIb, IVa, IVb, Va, Via, VIb, VIIa, and VIII of the Periodic Table with a valency of 2 or more and a degree of ionisation less than that of the alkali metals metal; n is an integer of 1 to 2; R represents an organic residue selected from

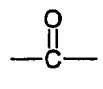
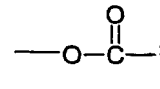


; and R1 is a monovalent organic residue, and

- 80-0% by weight, calculated on the total amount of film-forming components, of polymer (B) is selected from polymers which are free of $-X-[O-M-R]_n$ terminal groups but which are reactive in water, slightly water-soluble, water-sensitive, or insoluble in water.
- a copper-based biocide for aquatic organisms

characterised in that that the antifouling coating composition is substantially free of any biocidal zinc compounds and substantially free of rosin, and in that the copper-based biocide has a metallic copper content below 2 % by weight, based on the total weight of the copper-based biocide.

2. The antifouling coating composition according to claim 1, characterised in that M is Cu, Zn, or Te.

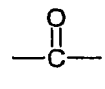
3. The antifouling coating composition according to claim 1 or 2, characterized in that the film-forming polymer (A) is an acrylic polymer in which X represents  , M is copper and R represents  , wherein R1 is a monovalent organic residue.

4. The antifouling coating composition according to any one of the preceding claims, characterized in that the copper-based biocide for aquatic organisms comprises cuprous oxide having a metallic copper content below 2 % by weight, based on the total weight of the cuprous oxide.

5. The antifouling coating composition according to claim 4, characterized in that the cuprous oxide has a metallic copper content below 1% by weight, based on the total weight of the cuprous oxide.

6. The antifouling coating composition according to any one of the preceding claims, characterized in that the copper-based biocide for aquatic organisms comprises copper pyrithione.

7. The antifouling coating composition according to claim 6, characterised in that the copper-based biocide for aquatic organisms comprises a combination of cuprous oxide having a metallic copper content below 2 % by weight, based on the total weight of the cuprous oxide and copper pyrithione.

8. The antifouling coating composition according to claim 1, characterized in that the film-forming polymer (A) is an acrylic polymer in which X represents  , M is copper and R is the residue of an organic monobasic carboxylic acid which has a boiling point greater than 115°C and an acid value between 50 and 950 mgKOH/gramme, wherein the copper-based

biocide for aquatic organisms comprises a combination of cuprous oxide having a metallic copper content below 2 % by weight, based on the total weight of the cuprous oxide and copper pyrithione..

9. A process for protecting a man-made structure immersed in a fouling aquatic environment wherein the structure is coated with an antifouling coating composition according to any one of the preceding claims.

10. The process of claim 9, wherein the aquatic environment is a low salinity aquatic environment.

11. A man-made structure immersed in an fouling aquatic environment coated with a coating composition according any one of claims 1 to 8.

12. The man-made structure of claim 11 which is immersed in a low-salinity aquatic environment.

13. The man-made structure of claim 11 wherein the structure is immersed in a low-salinity aquatic environment for part of its life and in a saline aquatic environment for part of its life.